

**REMARKS**

The present application includes claims 1-21. Claims 1-19 and 21 were rejected by the Examiner. Claims 2-10, 12, and 21 have been amended by this response. Claim 20 has been withdrawn by this response.

During a telephone conversation between Mr. George and Examiner Church on November 23, 2004, a provisional election was made without traverse to prosecute the invention of group I, claims 1-19 and 21. This shall serve as an affirmative election without traverse to prosecute the invention of group I, claims 1-19 and 21. Claim 20 has been withdrawn from further consideration in the present application.

By this Amendment and Response, independent claims 10 and 21 have been amended. Thus, the Applicants respectfully submit that independent claims 1, 10, and 21, as well as their respective dependent claims, are allowable.

Claims 2-19 and 21 have been rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 has been provisionally rejected for nonstatutory double patenting.

Claims 1-19 have been rejected under 35 U.S.C. § 112, first paragraph, because the Examiner asserts that the specification, while being enabling for a calibration system comprising a multipin phantom, does not reasonably provide enablement without a multipin phantom.

The Applicants now turn to the rejection of claims 2-19 and 21 under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to point out and distinctly claim the subject matter which applicant regards as the invention. The examiner asserted that “the limitations conveyed by ‘radius of said motion pattern’ in claims 2, 3, 6, 8 and 10, ‘radial beam correction module’ in claim 10, ‘angle of said motion pattern’ in claims 4, 5, 7, 9 and 10, and ‘angular beam adjustment module’ in claim 10 are unclear since no specific motion pattern has been recited.” Claims 2-10 have been amended by this response, to more specifically recite a motion pattern. Claims 2, 3, 4, 6, 8 and 10, as amended, recite the limitation “wherein said motion pattern comprises at least one angle.” Claims 4, 5, 7, 9 and 10, as amended, recite the limitation “wherein said motion pattern comprises at least one radius.” Additionally, original claim 1 recites “initiating ... an estimated motion pattern for the energy source.”

Claim 10 was also amended for clerical reasons. Prior to this amendment, claim 10 recited “moving in a pattern” and latter referenced “said motion pattern.” Claim 10 now says “moving in a motion pattern” to provide clear antecedent basis.

The Examiner also noted that “the limitations conveyed by ‘deflection values’ under claim 12 are unclear.” Claim 12, as amended, recites the limitation of deflection values “wherein said deflection values represent currents in said energy source.”

Additionally, the Examiner noted that “the limitations conveyed by ‘coil currents of an electron beam’ in claim 21 are unclear since an electron beam does not comprise a coil.” Claim 21, as amended, recites the step of “modifying coil currents deflecting an electron beam.” (emphasis added).

Thus, the Applicants respectfully submit that claim 2-10 and 21 are allowable as amended. Claims 11-19 ultimately depend on claim 10 and are patentable for the reasons given above.

The Applicants now turn to the provisional rejection of claim 1 for nonstatutory double patenting. The Applicant respectfully disagrees with the examiner's assertion that claim 1 of the present application and claims 7 and 8 of the copending application No. 10/065,699 are not patentably distinct from each other. Claim 1 is patentably distinct from claims 7 and 8 of the copending application, and the Applicants respectfully submit that claim 1 is allowable. However, since the copending applications have a common assignee, the same inventors and the same priority date, the Applicants submit a terminal disclaimer to overcome the examiner's provisional nonstatutory double patenting rejection.

The Applicants now turn to the rejection of claims 1-19 under 35 U.S.C. § 112, first paragraph, "because the specification, while being enabling for a calibration system comprising a multipin phantom, does not reasonably provide enablement without a multipin phantom." Claim 1 recites "a phantom having pins located at positions in the phantom." Thus, the Applicants respectfully submit that claim 1 is allowable. Claims 2-9 ultimately depend on claim 1 and are patentable for the reasons given above.

The specification uses an example of a multipin phantom 775 to illustrate how to calibrate an imaging system. Paragraph 68 states,

While the invention has been described with reference to certain embodiments, it will be understood by those skilled in the art that various changes may be made and equivalents may be substituted without departing from the scope of the invention. In addition, many modifications may be made to adapt a

particular situation or material to the teachings of the invention without departing from its scope. Therefore, it is intended that the invention not be limited to the particular embodiment disclosed, but that the invention will include all embodiments falling within the scope of the appended claims.

Earlier in the specification, paragraph 29 ends by stating that “A phantom may be used to calibrate the system 100 to improve image quality and accuracy, for example.” Paragraph 30 then begins by giving “an embodiment” of the present invention, which is “a multipin phantom 200 used for system geometrical calibration.” (emphasis added) There are other embodiments aside from a multipin phantom as paragraph 68 indicates.

Additionally, paragraph 56 of the specification states that “The [electron beam tuning] system 700 may be used in conjunction with ... a multipin phantom 775.” (emphasis added). Furthermore, paragraphs 63-67, describe Figure 8—“a flow diagram 800 for a method for adjusting an electron beam used in accordance with an embodiment of the present invention.” Those paragraphs never directly reference “a multipin phantom,” and only reference pin positions twice. One of those times is when pin positions are used as an example—“Electron beam and beam spot motion parameters, as well as other parameters, such as pin positions ... may be stored in a file.” (emphasis added) Thus, the Applicants respectfully submit that claim 10 is allowable as amended. Claims 11-19 ultimately depend on claim 10 and are patentable for the reasons given above.

Finally, as stated earlier, claims 1, 10, and 21 are allowable with the amendments to claims 10 and 21. Because claims 2-9 and 11-19 ultimately depend on claims 1 and 10, they too are patentable. Thus, the Applicants respectfully submit that claims 1-19 and 21 are allowable.

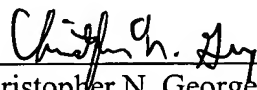
**CONCLUSION**

The Applicants submit that the present application is in condition for allowance. If the Examiner has any questions or the Applicants can be of any assistance, the Examiner is invited and encouraged to contact the Applicants at the number below. In particular, should the Examiner have any questions concerning the definiteness of the claims in pointing out and distinctly claiming the subject matter which the Applicants regard as the invention, the Examiner is invited and encouraged to contact the Applicants at the number below.

The Commissioner is authorized to charge any additional fees or credit overpayment to the Deposit Account of GTC, Account No. 070845.

Respectfully submitted,

Date: 12/29/04

  
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Christopher N. George  
Reg. No. 51,728

McAndrews, Held & Malloy, Ltd.  
500 W. Madison Street  
34<sup>th</sup> Floor  
Chicago, IL 60661  
Phone (312) 775-8000  
Fax (312) 775-8100